

Safety Data Sheet

according to 29 CFR 1910.1200(g)

ALiCE Cell Free Protein Expression Reaction Mix

Revision date: 11.02.2020

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1. Identification

Product identifier

ALiCE Cell Free Protein Expression Reaction Mix

Product code:

AL0103050

AL0103200

AL0103500

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Laboratory chemicals (Observe instructions for use.)

Expression of proteins

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

This mixture is not classified as hazardous in accordance with Regulation 29 CFR 1910.1200(d).

Label elements

Additional advice on labelling

GHS label elements, including precautionary statements: none/none

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Contains: water, Tobacco cell extract, Additive.

Hazardous ingredients (according to Regulation 29 CFR 1910.1200(d)): none/none (> 0,1%)

4. First-aid measures

Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

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After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. Call a doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Specific hazards arising from the chemical

Non-flammable.

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Avoid contact with skin, eyes and clothes. Provide adequate ventilation. Do not breathe gas/fume/vapour/spray.

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes and clothes. Do not breathe gas/fume/vapour/spray. Use personal protection equipment.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Keep container tightly closed. Store in a cool dry place.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Take off contaminated clothing. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Do not breathe gas/fume/vapour/spray.

Eye/face protection

Wear eye protection/face protection.

Hand protection

Wear suitable gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Avoid release to the environment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	light yellow
Odor:	neutral
pH-Value:	7,5

Changes in the physical state

Melting point/freezing point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not determined

Flammability

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Solid: not applicable

Gas: not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits: not determined

Upper explosion limits: not determined

Ignition temperature: not determined

Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapor pressure: not determined

Density: not determined

Water solubility: miscible

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Vapor density: not determined

Evaporation rate: not determined

Other information

Odor threshold: not determined

10. Stability and reactivity

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

Conditions to avoid

No information available.

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

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Route(s) of Entry

oral, inhalative, Skin contact, Eye contact

Acute toxicity

Based on available data, the classification criteria are not met.

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitizing effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

Aspiration hazard

Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

The product is not: Ecotoxic.

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Mobility in soil

The product has not been tested.

Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information

US DOT 49 CFR 172.101

Proper shipping name:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

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<u>UN number:</u>	No dangerous good in sense of this transport regulation.
<u>UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>Packing group:</u>	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

<u>UN number:</u>	No dangerous good in sense of this transport regulation.
<u>UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>Packing group:</u>	No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15. Regulatory information

U.S. Regulations

National Inventory TSCA

CAS No. 7732-18-5: Yes.

Tobacco cell extract (Nicotiana tabacum): No.

Additive: Yes.

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health:	0
Flammability:	0
Physical Hazard:	0

NFPA Hazard Ratings

Health:	0
Flammability:	0
Reactivity:	0
Unique Hazard:	

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Revision No: 1,0

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists

CFR: Code of Federal Regulations

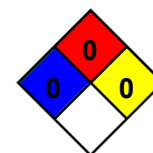
DOT: Department of Transportation

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IARC: International Agency for Research on Cancer



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GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service
 NFPA: National Fire Protection Association
 NTP: National Toxicology Program
 OSHA: Occupational Safety and Health Administration
 PEL: permissible exposure limit
 REL: recommended exposure limit
 SARA: Superfund Amendments and Reauthorization Act
 STEL: Short-term exposure limit
 TSCA: Toxic Substances Control Act
 TWA: time-weighted average
 TI: Technical Instructions
 DGR: Dangerous Goods Regulations
 UN: United Nations
 ATE: Acute toxicity estimate
 LC50: Lethal concentration, 50%
 LD50: Lethal dose, 50%
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 VOC: Volatile Organic Compounds

Other data

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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